

Appl. No. 10 731 757

Amdt. dated February 24, 2006

Reply to Office action mailed February 6, 2006

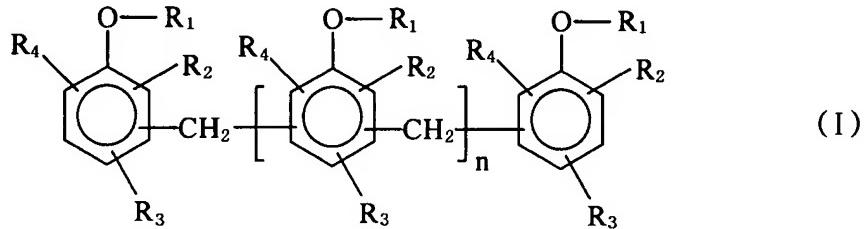
AMENDMENTS TO THE CLAIMS:

Claims 1-3, 6-13, and 16-26 are pending and under consideration. This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (original). A flame retardant thermoplastic resin composition comprising:

- (A) 100 parts by weight of a thermoplastic resin as a base resin;
- (B) about 0.1~100 parts by weight of a phenol resin derivative represented by the following Formula:



where R₁ is alkyl of C₁₋₃₄; aryl; alkyl-substituted aryl; O-, N-, P- or S-containing alkyl; O-, N-, P- or S-containing aryl; or O-, N-, P- or S-containing alkyl-substituted aryl; R₂, R₃, and R₄ are hydrogen, alkyl of C₁₋₃₄; aryl; alkyl-substituted aryl; O-, N-, P- or S-containing alkyl; O-, N-, P- or S-containing aryl; or O-, N-, P- or S-containing alkyl-substituted aryl; and n is an integer of 1 to 10,000; and

- (C) about 1~50 parts by weight of a phosphoric acid ester morpholide compound.

Claim 2 (original). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said base resin is selected from the group consisting of polyacrylonitrile-butadiene-styrene copolymer (ABS resin), rubber modified polystyrene resin (HIPS), acrylonitrile-styrene-acrylate copolymer (ASA resin), methacrylate-butadiene-styrene copolymer (MBS resin),

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acrylonitrile-ethacrylate-styrene copolymer (AES resin), polycarbonate (PC), polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), polybutylene terephthalate (PBT), polyvinyl chloride (PVC), polymethyl methacrylate (PMMA), polyamide (PA), and a copolymer thereof and an alloy thereof.

Claim 3 (original). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said phenol resin derivative is selected from the group consisting of o-cresol novolak epoxy resin, phenol epoxy resin and a mixture thereof.

Claim 4 (canceled)

Claim 5 (canceled)

Claim 6 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, further comprising an additive comprising an impact modifier, a heat stabilizer, an oxidation inhibitor, a light stabilizer, talc, silica, mica, glass fiber, an organic or inorganic pigment and/or dye up to about 50 parts by weight as per 100 parts by weight of the base resin.

Claim 7 (original). A molded article prepared by the flame retardant thermoplastic resin composition of claim 1.

Claim 8 (currently amended). A molded article prepared by the flame retardant thermoplastic resin composition of claim 4 19.

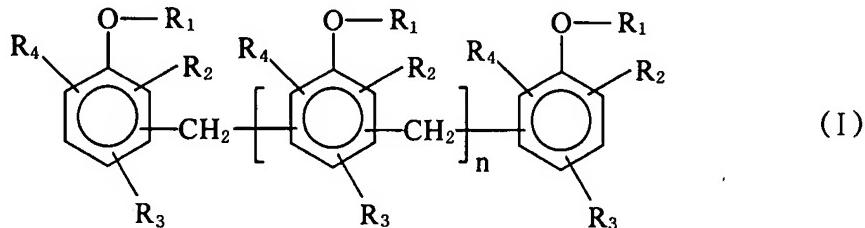
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Claim 9 (original). A flame retardant thermoplastic resin composition comprising:

- (A) 100 parts by weight of a thermoplastic resin as a base resin;
- (B) about 0.1~100 parts by weight of polyphenylene ether;
- (C) about 0.1~100 parts by weight of a phenol resin derivative represented by the following Formula (I);



where R₁ is alkyl of C₁₋₃₄; aryl; alkyl-substituted aryl; O-, N-, P- or S-containing alkyl; O-, N-, P- or S-containing aryl; or O-, N-, P- or S-containing alkyl-substituted aryl; R₂, R₃, and R₄ are hydrogen, alkyl of C₁₋₃₄; aryl; alkyl-substituted aryl; O-, N-, P- or S-containing alkyl; O-, N-, P- or S-containing aryl; or O-, N-, P- or S-containing alkyl-substituted aryl; and n is an integer of 1 to 10,000; and

- (D) about 0.1~50 parts by weight of a phosphoric acid ester morpholide compound.

Claim 10 (original). The flame retardant thermoplastic resin composition as defined in claim 9, further comprising up to about 5.0 parts by weight of an anti-dripping agent based on 100 parts by weight of the base resin.

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Claim 11 (original). The flame retardant thermoplastic resin composition as defined in claim 10, wherein said anti-dripping agent is a fluoride resin.

Claim 12 (original). The flame retardant thermoplastic resin composition as defined in claim 9, wherein said base resin is selected from the group consisting of polyacrylonitrile-butadiene-styrene copolymer (ABS resin), rubber modified polystyrene resin (HIPS), acrylonitrile-styrene-acrylate copolymer (ASA resin), methacrylate-butadiene-styrene copolymer (MBS resin), acrylonitrile-ethacrylate-styrene copolymer (AES resin), polycarbonate (PC), polyethylene (PE), polypropylene (PP), polyethylene terephthalate (PET), polybutylene terephthalate (PBT), polyvinyl chloride (PVC), polymethyl methacrylate (PMMA), polyamide (PA), and a copolymer thereof and an alloy thereof.

Claim 13 (original). The flame retardant thermoplastic resin composition as defined in claim 9, wherein said phenol resin derivative is selected from the group consisting of o-cresol novolak epoxy resin, phenol epoxy resin and a mixture thereof.

Claim 14 (canceled)

Claim 15 (canceled)

Claim 16 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 10, further comprising an additive comprising an impact modifier, a heat stabilizer, an oxidation inhibitor, a light stabilizer, talc, silica, mica, glass fiber, an organic or inorganic pigment and/or dye up to about 50 parts by weight as per 100 parts by weight of the base resin.

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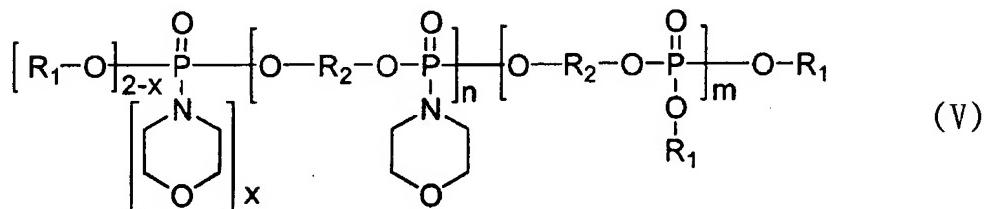
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Claim 17 (original). A molded article prepared by the flame retardant thermoplastic resin composition of claim 9.

Claim 18 (original). A molded article prepared by the flame retardant thermoplastic resin composition of claim 14.

Claim 19 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 1, wherein said phosphoric acid ester morpholide compound is represented by the following Formula:



where R'^1 is a C_{6-20} aryl group or an alkyl-substituted C_{6-20} aryl group, R'^2 is a C_{6-30} aryl group or an alkyl-substituted C_{6-30} aryl group, x is 1 or 2, and n and m are number average degree of polymerization and $n+m$ is 0 to 5.

Claim 20 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 19 wherein x is 1.

Claim 21 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 19, where R'^1 is phenyl group or an alkyl-substituted phenyl group, where the alkyl is methyl, ethyl, isopropyl, t-butyl, isoamyl or t-amyl and R'^2

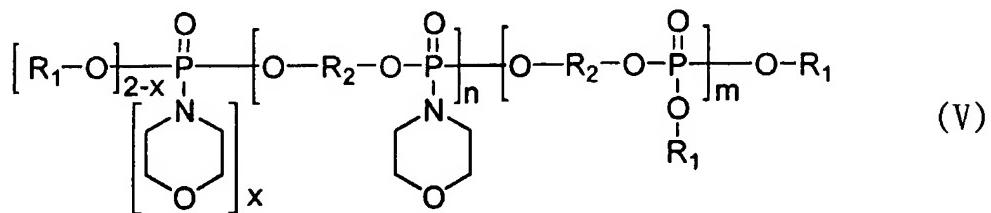
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is a C₆₋₃₀ aryl group or an alkyl-substituted C₆₋₃₀ aryl group which is a derivative from resorcinol, hydroquinone, or bisphenol-A.

Claim 24 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 9, wherein said phosphoric acid ester morpholide compound is represented by the following Formula (V):



where R'₁ is a C₆₋₂₀ aryl group or an alkyl-substituted C₆₋₂₀ aryl group, R'₂ is a C₆₋₃₀ aryl group or an alkyl-substituted C₆₋₃₀ aryl group, x is 1 or 2, and n and m are number average degree of polymerization and n+m is 0 to 5.

Claim 25 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 24 wherein x is 1.

Claim 26 (previously presented). The flame retardant thermoplastic resin composition as defined in claim 24, where R'₁ is phenyl group or an alkyl-substituted phenyl group, where the alkyl is methyl, ethyl, isopropyl, t-butyl, isoamyl or t-amyl and R'₂ is a C₆₋₃₀ aryl group or an alkyl-substituted C₆₋₃₀ aryl group which is a derivative from resorcinol, hydroquinone, or bisphenol-A.